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RESULT 6
HUMIRGT
LOCUS
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                               2128 bp
                                        mRNA
                                               linear
                                                       PRI 06-JAN-1995
DEFINITION
          Human insulin-responsive glucose transporter (GLUT4) mRNA, complete
          cds.
ACCESSION
          M20747
VERSION
          M20747.1 GI:186552
KEYWORDS
          insulin-responsive glucose transporter.
SOURCE
          Homo sapiens (human)
 ORGANISM
          Homo sapiens
          Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
          Mammalia; Eutheria; Euarchontoglires; Primates; Catarrhini;
          Hominidae; Homo.
            (bases 1 to 2128)
REFERENCE
 AUTHORS
          Fukumoto, H., Kayano, T., Buse, J.B., Edwards, Y., Pilch, P.F.,
          Bell, G.I. and Seino, S.
          Cloning and characterization of the major insulin-responsive
 TITLE
          glucose transporter expressed in human skeletal muscle and other
          insulin-responsive tissues
          J. Biol. Chem. 264 (14), 7776-7779 (1989)
 JOURNAI.
  PUBMED
COMMENT
          Original source text: Human jejunum and muscle, cDNA to mRNA,
          clones lambda-h-[JHT-3, AMT-6, FMT-1].
          Draft entry and computer-readable sequence for [1] kindly provided
          by G.I.Bell, 19-APR-1989.
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                      99.9%;
                             Pred. No. 0;
 Best Local Similarity
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                            0: Mismatches
                                            1: Indels
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                                                        0: Gaps
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Qy
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Db
        Qγ
            Db
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            Db
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Qγ
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Qу	1081	TGTGGCTGTGCCATCCTGATGACTGTGGCTCTGCTCCTGCTGGAGCGAGTTCCAGCCATG	1140
Db	1226	TGTGGCTGTGCCATCCTGATGACTGTGGCTCTGCTGCTGCAGCGAGTTCCAGCCATG	1285
Qу	1141	AGCTACGTCTCCATTGTGGCCATCTTTGGCTTCGTGGCATTTTTTGAGATTGGCCCTGGC	1200
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Db	1346	CCCATTCCTTGGTTCATCGTGGCCGAGCTCTTCAGCCAGGGACCCCGCCCG	1405
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Qy	1381	TTCATCTTCACCTTCTTAAGAGTACCTGAAACTCGAGGCCGGACGTTTGACCAGATCTCA	1440
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     08-SEP-2005 (first entry)
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DE
XX
     SNP detection; diagnosis; non-insulin dependent diabetes; obesity;
KW
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KW
KW
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XX
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     Homo sapiens.
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PN
XX
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XX
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PR
XX
PA
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XX
     Venter JC, Zhang JN, Liu X, Rowe W, Cravchik A, Kalush F;
PΤ
ΡI
     Naik A,
             Subramanian G, Woodage T;
XX
     WPI: 2005-511776/52.
DR
     P-PSDB; AEB32351.
DR
XX
     New detection reagent capable of detecting 1, 100, 500, 1000 or 5000 or
РΤ
     more single nucleic acid polymorphisms, useful in identifying an
PT
     individual having or at risk of developing type II diabetes or obesity.
PT
XX
PS
     Disclosure; SEQ ID NO 53; 31pp; English.
XX
CC
     The invention relates to a detection reagent capable of detecting one or
CC
     more single nucleic acid polymorphisms. The invention also relates to
CC
     determining whether a trait is linked to one of the human chromosomes or
CC
     its sub-region, a computer readable medium having stored in it the SNP
     relational information given in the specification, an isolated nucleic
CC
CC
     acid molecule for detecting at least one SNP given in the specification
     comprising at least about 12 contiguous nucleotides, genotyping at least
CC
CC
     one SNP position given in the specification in a sample, identifying an
CC
     individual having or at risk of developing a disorder and a kit
CC
     comprising at least one container containing the detection reagent.
CC
     Determining whether a trait is linked to one of the human chromosomes or
CC
     its sub-region comprises determining whether the trait is linked to one
     or more SNPs using the detection reagents. Genotyping at least one SNP
CC
CC
     position given in the specification in a sample comprises contacting the
CC
     sample with a detection reagent that differentiates between alternative
CC
     alleles at at least one SNP position given in the specification, and
CC
     determining which allele is present at the at least one SNP position.
CC
     Identifying an individual having or at risk of developing a disorder
CC
     comprises genotyping at least one SNP given in the specification in a
CC
     nucleic acid sample from the individual. The disorder is type II diabetes
CC
     (non-insulin dependent diabetes) or obesity. The detection reagent is
CC
     useful in identifying an individual having or at risk of developing a
CC
     disorder, particularly type II diabetes or obesity. This sequence
CC
     represents human cDNA used in the scope of the invention. Note: The
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CC
CC
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CC
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XX
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                                                               0; Gaps
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Db	1226	TGTGGCTGTGCCATCCTGATGACTGTGGCTCTGCTGCTGGAGCGAGTTCCAGCCATG	1285
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mel - vol

• SCORE Search Results Details for Application 10659234 and Search Result us-10-659-2... Page 3 of 3

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RESULT 1
US-09-591-025-8
; Sequence 8, Application US/09591025
 Patent No. 6303373
 GENERAL INFORMATION:
  APPLICANT: Bogan, Jonathan S.
  APPLICANT: Lodish, Harvey F.
  TITLE OF INVENTION: Method of Measuring Plasma Membrane
  TITLE OF INVENTION: Targeting of GLUT4
  FILE REFERENCE: 0399.1210-004
  CURRENT APPLICATION NUMBER: US/09/591,025
  CURRENT FILING DATE: 2000-06-09
  PRIOR APPLICATION NUMBER: 60/154,078
  PRIOR FILING DATE: 1999-09-15
  PRIOR APPLICATION NUMBER: 60/138,237
  PRIOR FILING DATE:
                1999-06-09
  NUMBER OF SEQ ID NOS: 8
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEQ ID NO 8
   LENGTH: 2592
   TYPE: DNA
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US-09-591-025-8
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RESULT 2
US-09-894-927B-8
; Sequence 8, Application US/09894927B
 Patent No. 6632924
; GENERAL INFORMATION:
 APPLICANT: Bogan, Jonathan S.
  APPLICANT: Lodish, Harvey F.
  TITLE OF INVENTION: Method of Measuring Plasma Membrane
  TITLE OF INVENTION: Targeting of GLUT4
  FILE REFERENCE: 0399.1210-005
  CURRENT APPLICATION NUMBER: US/09/894,927B
  CURRENT FILING DATE: 2001-06-28
  PRIOR APPLICATION NUMBER: US 09/591,025
  PRIOR FILING DATE: 2000-06-09
  PRIOR APPLICATION NUMBER: US 60/154,078
  PRIOR FILING DATE: 1999-09-15
  PRIOR APPLICATION NUMBER: US 60/138,237
  PRIOR FILING DATE: 1999-06-09
  NUMBER OF SEQ ID NOS: 9
  SOFTWARE: FastSEQ for Windows Version 4.0
 SEO ID NO 8
   LENGTH: 2592
   TYPE: DNA
   ORGANISM: Artificial Sequence
   FEATURE:
   OTHER INFORMATION: modified GLUT4 containing myc tag sequences
   FEATURE:
   NAME/KEY: CDS
   LOCATION: (1)...(2592)
US-09-894-927B-8
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 Best Local Similarity 99.5%; Pred. No. 0;
                          0; Mismatches
 Matches 1326; Conservative
                                         7; Indels
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Qy
           510 GCTTAAGGGACCCAGCTCCATCCCTCCAGGCACCCTCACCACCCTCTGGGCCCTCTCCGT 569
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Qy Db			
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Qy	435	TGGCGCCTACTCAGGGCTGACATCAGGGCTGGTGCCCATGTACGTGGGGGAGATTGCTCC	494
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Qу	495	CACTCACCTGCGGGGCCCCTGGGGACGCTCAACCAACTGGCCATTGTTATCGGCATTCT	554
Db	810	CACTCACCTGCGGGGCGCCCTGGGGACGCTCAACCAACTGGCCATTGTTATCGGCATTCT	869
Qу	555	GATCGCCCAGGTGCTGGGCTTGGAGTCCCTCCTGGGCACTGCCAGCCTGTGGCCACTGCT	614
Db	870	GATCGCCCAGGTGCTGGGCTTGGAGTCCCTCCTGGGCACTGCCAGCCTGTGGCCACTGCT	929
Qу	615	CCTGGGCCTCACAGTGCTACCTGCCCTCCTGCAGCTGGTCCTGCTGCCCCTTCTGTCCCGA	674
Db	930	CCTGGGCCTCACAGTGCTACCTGCCCCTCCTGCAGCTGGTCCTGCCCCTTCTGTCCCGA	989
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Qу		GCGCCTGACAGGCTGGGCCGATGTTTCTGGAGTGCTGAGCTGAGCTGAAGGATGAGAAGCG	
Db		GCGCCTGACAGGCTGGGCCGATGTTTCTGGAGTGCTGAGCTGAAGGATGAGAAGCG GAAGCTGGAGCGTGAGCGGCCACTGTCCCTGCTCCAGCTCCTGGGCAGCCGTACCCACCG	
Qу		GAAGCTGGAGCGTGAGCGGCCACTGTCCCTGCTCCAGCTCCTGGGCAGCCGTACCCACCG	
Qy		GCAGCCCCTGATCATTGCGGTCGTGCTGCAGCTGAGCCAGCAGCTCTCTGGCATCAATGC	
Db			
Qy	915	TGTTTTCTATTATTCGACCAGCATCTTCGAGACAGCAGGGGTAGGCCAGCCTGCCT	974
Db	1230		1289
Qу		${\tt CACCATAGGAGCTGGTGTGTCAACACAGTCTTCACCTTGGTCTCGGTGTTGTTGGTGGA}$	
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Qу	1035	GCGGGCGGGCCCGGACGCTCCATCTCCTGGCCTGGCGGCATGTGTGCCAT	1094
Db	1350	GCGGGCGGGCCCGGACGCTCCATCTCCTGGGCCTGGCGGCATGTGTGGCTGTGCCAT	1409
Qy	1095	CCTGATGACTGTGGCTCTGCTCCTGCTGGAGCGAGTTCCAGCCATGAGCTACGTCTCCAT	1154
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Qy Db		CATCGTGGCCGAGCTCTTCAGCCAGGGACCCCGCCCGGCAGCCATGGCTGGTTGTTT	
Qy		CTCCAACTGGACGAGCAACTTCATCATTGGCATGGGTTTCCAGTATGTTGCGGAGGCTAT	
Db		CTCCAACTGGACGAGCAACTTCATCATTGGCATGGGTTTCCAGTATGTTGCGGAGGCTAT	
Qу	1335	GGGGCCCTACGTCTTCCTTCTATTTGCGGTCCTCCTGCTGGGCTTCTTCATCTTCACCTT	1394
Db	1650	GGGCCCTACGTCTTCTATTTGCGGTCCTCCTGCTGGGCTTCTTCATCTTCACCTT	1709
Qy	1395	$\tt CTTAAGAGTACCTGAAACTCGAGGCCGGACGTTTGACCAGATCTCAGCTGCCTTCCACCG$	1454
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SCORE Search Results Details for Application 10659234 and Search Result us-10-659-2... Page 4 of 4

1770 GACACCCTCTCTTTTAGAGCAGGAGGTGAAACCCAGCACAGAACTTGAGTATTTAGGGCC 1829 Db

1515 AGATGAGAACGAC 1527 Qу Db 1830 AGATGAGAATGAC 1842

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RESULT 14
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XX
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XX
            12-AUG-2002 (first entry)
DT
XX
            Modified GLUT4 encoding nucleotide sequence.
DE
XX
             Protein translocation; plasma membrane; GLUT-4; diabetes mellitus;
KW
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KW
XX
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XX
FΗ
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PR
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PR
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PΑ
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XX
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PI
XX
DR
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             P-PSDB; ABB07975.
DR
XX
PT
             Determining protein translocation to the plasma membrane of a mammalian
PT
             cell using a modified protein with an intracellular fluorescent tag and
            an extracellular group tag, useful in finding new drugs, particularly to
PT
PT
             treat diabetes.
XX
PS
             Example 1; Fig 8a-b; 34pp; English.
XX
CC
            The invention relates to determining if a protein translocates from an
CC
            intracellular location to the plasma membrane of a mammalian cell in the
CC
            presence of a condition or stimulus. The method involves modifying the
            protein with a group tag in the extracellular domain and a fluorescent
CC
CC
             tag in the intracellular domain and determining the proportion of total
            protein which is at the membrane. The method is used to identify a drug
CC
            which enhances translocation of a protein from an intracellular location
CC
CC
             to the plasma membrane of a mammalian cell. The method is particularly
             used to measure GLUT-4 protein translocation to identify drugs to treat
CC
            insulin resistance in adult-onset diabetes mellitus. The invention % \left( 1\right) =\left( 1\right) \left( 1\right) 
CC
CC
             provides a less labour intensive quantitative method for measuring GLUT4
             translocation than prior art methods. The present sequence represents a
CC
CC
            modified GLUT4 nucleotide sequence, containing myc epiotpe tags and green
CC
             fluorescent protein (GFP) sequences
XX
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                                                                                     C; 733 G; 547 T; 0 U; 0 Other;
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                                                                                         core 1325; DB 6;
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                                                             ative
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                                    Db
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QУ		TGGCGCCTACTCAGGGCTGACATCAGGGCTGGTGCCCATGTACGTGGGGGAGATTGCTCC	
Db	750	TGGCGCCTACTCAGGGCTGACATCAGGGCTGGTGCCCATGTACGTGGGGGAGATTGCTCC	809
Ωу		CACTCACCTGCGGGCCCCCTGGGGACGCTCAACCAACTGGCCATTGTTATCGGCATTCT	
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Qу	555	GATCGCCCAGGTGCTGGGCTTGGAGTCCCTCCTGGGCACTGCCAGCCTGTGGCCACTGCT	614
Db	870	GATCGCCCAGGTGCTGGGCTTGGAGTCCCTCCTGGGCACTGCCAGCCTGTGGCCACTGCT	929
Qу	615	CCTGGGCCTCACAGTGCTACCTGCCCTCCTGCAGCTGGTCCTGCTGCCCCTTCTGTCCCGA	674
Db	930	CCTGGGCCTCACAGTGCTACCTGCCCTCCTGCAGCTGGTCCTGCCCCTTCTGTCCCGA	989
Qу	675	GAGCCCCGCTACCTCTACATCATCCAGAATCTCGAGGGGCCTGCCAGAAAGAGTCTGAA	734
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Qу	915	TGTTTTCTATTATTCGACCAGCATCTTCGAGACAGCAGGGGTAGGCCAGCCTGCCT	974
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Qу	1095	CCTGATGACTGTGGCTCTGCTGCTGGAGCGAGTTCCAGCCATGAGCTACGTCTCCAT	1154
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Qу	1215	CATCGTGGCCGAGCTCTTCAGCCAGGGACCCCGCCGGCAGCCATGGCTGTGTTT	1274
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Db	1830	AGATGAGAATGAC 1842	

Page 3 3 blank

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DEFINITION
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        CQ730609
ACCESSION
        CQ730609.1 GI:42304929
VERSION
KEYWORDS
SOURCE
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 ORGANISM
        Homo sapiens
        Eukaryota; Metazoa; Chordata; Craniata; Vertebrata; Euteleostomi;
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REFERENCE
        Venter, C.J., Adams, M.C., Li, P.W. and Myers, E.W.
 AUTHORS
        Kits, such as nucleic acid arrays, comprising a majority of
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        Patent: WO 02068579-A 16543 06-SEP-2002;
        PE Corporation (NY) (US)
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